

REMARKS

The Office Action mailed August 5, 2008, has been received and its contents carefully noted. Claims 12, 14-18, 20-21 and 24-34 were rejected and claims 1-10, 13, 21, 29 and 30 were withdrawn from consideration. Claims 11, 19, and 22-23 were previously canceled. By this Response, claims 12, 16, 29 and 30 have been amended. Support for the amendment may be found in the specification and claims as originally filed. No statutory new matter has been added. Therefore, reconsideration and entry of the claims, as amended, are respectfully requested.

Claim Objection

The Examiner objected to claim 16 for an informality.

Applicants respectfully submit that the claim objection may be properly withdrawn in view of the amendment to claim 16.

Rejection under 35 U.S.C. 103(a)

The Examiner rejected claims 12, 14-15, 17-18, 22, 24-28 and 32-34 under 35 U.S.C. 103(a) as being unpatentable over Guerret (WO 0071501, using US 6,657,043 as a translation) in view of Fischer (US 6,239,226) and Coran (US 4,473,683). Specifically, the Examiner deemed that it would have been obvious to use the copolymer of Guerret in the brittle matrix of Fischer in the amounts taught by Coran to obtain a resin with high impact strengths, especially at low temperatures, high weathering and aging stability, and ease of colorability. The Examiner also rejected claims 16 and 31 as being unpatentable over Guerret in view of Fischer as applied to claim 12 and further in view of Pourallmady (EP 0947527) and claim 20 as being unpatentable over Guerret in view of Fischer and in further view of Billovits (WO 9852978).

Applicants respectfully submit that the combination of Guerret, Fisher and Coran does not result in the claimed invention as a whole. In particular, the cited references do not teach or suggest preparing a polymer material having a brittle matrix (I) and a block copolymer (II) of formula B-(A)_n, where B is a polymer block with a flexible nature, A is a polymer block with a stiff nature or the block copolymer is compatible with the matrix, and the block copolymer (II) is obtained by controlled radical polymerization with a nitroxide.

Although Guerret discloses polyalcoxyamines that may be used for free-radical polymerization and that the nitroxide corresponding to the polyalcoxyamine may be added to the polymerization medium, Example 1D (col. 24) is the sole example that discloses the production of a block copolymer PS-PABu-PS in the presence of one dialcoxyamine. Example 1D of Guerret does not disclose controlled radical polymerization with a nitroxide according to the claimed invention. In addition, Guerret does not teach or suggest separating the residual monomers, after the polymerization of the second block, as it is silent on any further mixing of the block copolymer obtained in the presence of nitroxide, with a brittle matrix.

Although Fischer discloses a process for producing block copolymers in the presence of free-radical initiators and N-oxyls radicals, Fischer does not specifically teach or suggest controlled radical polymerization with a nitroxide. Fischer does not contemplate using alcoxyamines to prepare the block copolymers. Fischer does not teach or suggest separating the residual monomers before mixing in a matrix. Fischer also does not teach or suggest that block A must be compatible with the matrix to be reinforced.

Applicants respectfully submit that one of ordinary skill in the art would not have been motivated to combine the disclosure of Coran with that of Guerret and Fischer. Specifically, Coran discloses blends of acrylic copolymer rubber and styrenic amorphous resins (SAR). Even if Coran mentions that compositions containing major proportions of SAR exhibit greater impact resistance than SAR without the rubber, Applicants respectfully submit that its combination with Guerret and Fischer to obtain the instant invention is not in accord with a proper obviousness analysis, because an acrylic copolymer rubber is totally different from a block copolymer according to the present invention, e.g. comprising one block polymer having a flexible nature, one block polymer having a stiff nature. Nevertheless, Coran does not alleviate the deficiencies of Guerret and Fischer.

Similarly, Pourallmady and Billovits, alone or in combination, do not alleviate the deficiencies of Guerret, Fischer, and Coran. Since the cited art, alone or in combination, do not teach or suggest a polymer material having a brittle matrix (I) and a block copolymer (II) of formula $B-(A)_n$, where B is a polymer block with a flexible nature, A is a polymer block with a stiff nature or the block copolymer is compatible with the matrix, and the block copolymer (II) is

obtained by controlled radical polymerization with a nitroxide, or methods of making thereof, the claimed invention is unobvious.

Therefore, Applicants respectfully urge that the claims unobvious and the rejection under 35 U.S.C. 103(a) should be withdrawn.

Request for Interview

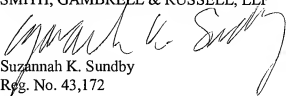
Applicants respectfully request either a telephonic or an in-person interview should there be any remaining issues.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefor are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 033808R197.**

Respectfully submitted,
SMITH, GAMBRELL & RUSSELL, LLP


Suzannah K. Sundby
Reg. No. 43,172

Date: December 5, 2008
1130 Connecticut Ave., NW, #1130
Washington, D.C. 20036
Telephone: (202) 263-4300
Facsimile: (202) 263-4329